

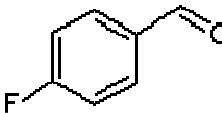
NAVIN FLUORINE INTERNATIONAL LTD		web: http://www.nfil.in mailto: speciality@nfil.in
		2nd Floor, Sunteck Centre, 37/40, Subash Road, Vile Parle (East), Mumbai-400057. India.

PRODUCT SPECIFICATION	
Title: 4 - FLUORO BENZALDEHYDE (C ₇ H ₅ FO)	Document No. : NFIL/QC /SPEC/FP/017/00 Effective Date : 05/11/2008

Material Code : SPE005004

Major Packing : UN-Certified /MS-HDPE drum 200 / 250Kg

Storage Specifications : Stored in dry condition at room temperature in well closed container.

Structural Formula : 

Molecular Formula : C₇H₅FO

Molecular Weight : 124.11

Synonyms : p-Fluorobenzaldehyde

Sr. No.	TEST	SPECIFICATION
Product Specification:		
1	Appearance / Description	Clear, colourless liquid
2	Purity (By GC)	99.00% Min.
3	Moisture (By KF)	00.20% Max.
4	Total Impurities	01.00% Max.

- Customer should discuss with business unit at speciality@nfil.in for the other requirements than specified.
- Analytical Method No. **NFIL/QC/WI/FP/017**



NAVIN FLUORINE
INTERNATIONAL LIMITED

MATERIAL SAFETY DATA SHEET (MSDS)

Para-fluorobenzaldehyde

1. CHEMICAL IDENTITY

Chemical Name	P-fluorobenzaldehyde
Synonym	4-fluorobenzaldehyde
Formula	C ₇ H ₅ FO

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients name: P-fluorobenzaldehyde	C.A.S. No 459-57-4 EC No: 206-752-8
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3. PHYSICAL / CHEMICAL DATA

Boiling Point	181 deg C	Vapour Pressure at 70 deg C	19 hPa
Melting Point	-10 deg C	Solubility in water	Not soluble
Vapour Density (Air = 1)	4.3	Appearance	Colourless yellow
Specific Gravity (Water=1)	1.157	Odour	None reported
pH (5% Soln.)	Not available	Other	----
Physical state	Clear liquid		

4. FIRE / EXPLOSION HAZARD DATA

Flammability: Yes	LEL%	Not available	Flash Point : 56 deg C
Auto Ignition Temp. Not available	UEL%	Not available	
TDG Flammability	NA		
Hazardous Combustion Product	Emits carbon monoxide, carbon dioxide, Hydrofluoric acid fumes		
Hazardous Polymerization	Not Reported		
Combustible liquid	Yes	Oxidizer	No
Flammable material	Yes	Organic Peroxide	No
Pyrophoric material	No	Corrosive	No
Explosive material	No	Other	-

5. STABILITY & REACTIVITY DATA

Chemical stability	Stable under normal temperature and pressure
Incompatibility	Strong oxidizing agent, strong reducing agents, strong bases and ignition sources
Conditions to avoid	Incompatible materials, ignition sources, excess heat, strong oxidants.
Hazardous reaction/decomposition products	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrogen fluoride gas.

6. HEALTH HAZARD DATA

Effects of exposure/ Symptoms	Skin, Eyes, Inhalation ,Ingestion
	Eye: May cause eye irritation. The toxicological properties of this material have not been fully investigated. Skin: May cause skin irritation. The toxicological properties of this material have not been fully investigated. Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated. Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Vapors may cause dizziness or suffocation.

7. TOXICOLOGICAL INFORMATION

LD 50 / LC50	Not Available
Permissible Exposure Limit	Not available
NFPA hazard signal (estimated)	Health-1, Flammability-2, Reactivity-0

8. ECOLOGICAL INFORMATION

No information available

9. PREVENTIVE MEASURES/EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls	Use adequate ventilation to keep airborne concentrations low
Personal Protective Equipments	Protective gloves, protective goggles, lab coat, respirators.

10. HANDLING & STORAGE

Normal Handling	Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage Recommendation	Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

11. EMERGENCY / FIRST AID MEASURE

Fire	Fire extinguishing medium	For fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective.
Exposure/first aid measures	Inhalation	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
	Skin / Eyes	Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
	Ingestion	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Special procedure	Use approved self contained positive pressure breathing apparatus with full face piece and protective clothing.	

12. ACCIDENTAL RELEASE MEASURES

General Information	Use proper personal protective equipment as indicated in section 9
Spills / Release	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

13. DISPOSAL CONSIDERAIONS

As per state and local regulations

14. TRANSPORT INFORMATION

	US (DOT)
Shipping Name	ALDEHYDES, N.O.S.
Hazard Class	3
UN Number	1989
Packing Group	III
Hazard Class label	



15. REGULATORY INFORMATION

European/International Regulations European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 33 Take precautionary measures against static discharges.

S 37 Wear suitable gloves.

S 37/39 Wear suitable gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 9 Keep container in a well-ventilated place.

S 28A After contact with skin, wash immediately with plenty of water

16. NAME OF FIRM - NAVIN FLUORINE INTERNATIONAL LIMITED

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